RECORD VERSION

STATEMENT BY

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Introduction

Chairman Faleomavaega, Ranking Member Manzullo, and Members of the Subcommittee, thank you for the opportunity to appear before this panel. Along with the other panel members, my role here today is to provide some insight and answer your questions regarding the missions of the United States Army Kwajalein Atoll and Ronald Reagan Ballistic Missile Defense Test Site, commonly referred to as USAKA/RTS. The USAKA/RTS installation and test range falls under the operational control of the U.S. Army Space and Missile Defense Command/Army Forces Strategic Command (USASMDC/ARSTRAT).

I currently serve as the Deputy to the Commander for Research, Development and Acquisition at the USASMDC/ARSTRAT. In this role, my primary duties and responsibilities include overseeing the basic and applied technology development efforts of Army space and missile defense initiatives. Within my assigned responsibilities at USASMDC/ARSTRAT, management and operation of two test ranges, one of which is the USAKA/RTS range, are also under my purview. My appearance before you today is primarily to outline the operational missions performed by USAKA/RTS on Kwajalein Atoll in the Republic of the Marshall Islands (RMI).

The Unique Location of USAKA/RTS

As you are aware, Kwajalein is the world's largest coral atoll surrounding the world's largest lagoon. Eleven of the approximately 100 islands comprising the atoll are designated as "defense sites" and are provided to the U.S. government to use for defense purposes by an international executive agreement known as the Compact of Free Association. Sophisticated instrumentation equipment comprised of multi-frequency radars, safety, optics, telemetry, and communications, as well as launch support equipment, is located on eight of these islands and provide mission support and reliable data for ballistic missile and missile interceptor testing, space launch, and operations support. Its isolated location in the western equatorial Pacific region uniquely qualifies RTS for supporting rigorous and realistic tests of all missile classes and intercept scenarios, as well as space operations.

Evolution of the Research and Development Partnership with the RMI

The Marshall Islands were controlled by Germany from the 1880s until the onset of World War I, at which time they were seized by Japanese forces. In 1935, Japan began to fortify Kwajalein and other atolls and the Kwajalein Atoll soon became home to

an Imperial Japanese Regional Naval Headquarters. In February 1944, the United States gained control of Kwajalein after a hard fought battle with Japanese forces. After the war, Kwajalein became part of the U.S. Trust Territory of the Pacific Islands. Officially established as a test site in October 1960, the range was transferred to U.S. Army control in July 1964. When the RMI was granted independence in 1986, Kwajalein remained an American military enclave, continuing the role it began in 1959 when it was designated the launch site for the Nike-Zeus anti-ballistic missile (ABM) program. USAKA/RTS is approaching half a century of successfully supporting ballistic missile testing and has more than 20 years of space operations experience.

A highly skilled joint government and contractor team, which includes military personnel, government civilians, technical support contractors, and scientists from the Massachusetts Institute of Technology's Lincoln Laboratory, operates and maintains USAKA/RTS. USAKA's installation capabilities support the range's test and development operations with essential services normally found in a community of about 1,700 people. USAKA's support services include housing, food service, medical and dental, schools, child-care, police, fire protection, postal, recreation, and media services. USAKA employs approximately 980 Marshallese local nationals who make an important contribution to the success of RTS operations.

Major Mission Functions of USAKA/RTS

USAKA and RTS support three mission areas that are vital to the success of U.S. ballistic missile defense (BMD) and space programs.

Space Operations

RTS supports the U.S. Army's space mission, the U.S. Air Force, National Aeronautics and Space Administration (NASA) space transportation system operations and experiments, and both Department of Defense (DOD) and non-DOD satellite launches. As part of USASMDC/ARSTRAT's support to the U.S. Strategic Command, RTS conducts space-object identification and provides critical coverage on new foreign launches coming from Asia. Its radars support deep space surveillance and contribute near-earth satellite observations for the Space Surveillance Network. Given the increasing problem with what is termed as "space junk," or fragments of objects destroyed in space which have remained in orbit, the range's tracking capability has been key in predicting possible collisions with U.S. orbiting satellites. These radars provide more than 50,000 tracks of objects per year.

Missile Testing

USAKA/RTS is an ideal location for testing ballistic missile components in multiple phases of flight. RTS has supported the Missile Defense Agency's (MDA) long range Ground-based Midcourse Defense program as well as various theater ballistic missile defense systems. RTS has also supported U.S. Air Force intercontinental ballistic missile (ICBM) testing. RTS supports lagoon impacts, where the re-entry vehicles and test articles need to be recovered, and impacts into the deep ocean area. RTS supported the Defense Advanced Research Projects Agency (DARPA) test of a

hypersonic technology vehicle in April and air crew training missions are planned to begin at RTS in the near future. Its isolated location minimizes constraints that exist in heavily populated areas and facilitates radio frequency spectrum coordination and control.

Space Launch

From its position at nine degrees latitude above the equator, RTS is a prime geographic launch site for both low earth and geosynchronous orbits and thereby enables space launch customers to maximize the weight of payloads placed into space. Since 2000, RTS has supported space launches by Orbital Sciences and Space Exploration Technologies Corporation (SPACE-X).

State of the Art Capabilities

The $4 billion RTS state-of-the-art complex of sophisticated radar, optical, and telemetry sensors provides unsurpassed quantitative and qualitative data acquisition. The high-resolution radars provide precision metric and signature data, imaging for deep-space operations, satellite observations, strategic re-entry missions, and multiple-intercept engagement tracking. Optical sensors provide precise optical metric data that are collected on objects both inside and outside the atmosphere using large-aperture optics equipped with visible and infrared sensors. Critical onboard missile information transmitted to the ground is collected via nine geographically dispersed telemetry antennas capable of receiving data over a wide range of frequencies. State-of-the-art ground stations receive, record, and display high data rates at tremendous speeds.

In addition to its instrumentation suite and the advantages of its location, RTS is also an essential asset as it is an integral part of the Pacific Range System, which also includes Vandenberg Air Force Base, California; Kodiak Launch Complex, Alaska; and the Pacific Missile Range Facility (PMRF), Hawaii. RTS possesses a combination of sophisticated radar and optical sensors unmatched anywhere in the world and plays a major role in research, development, test, and evaluation for America's defense and space programs. Its location in the Pacific Ocean makes RTS ideal for full performance testing of BMD systems and support of space launches with favorable safety and environmental conditions.

Conclusion

Mr. Chairman and Members of the Committee, as a component of the Army and DOD team, USASMDC/ARSTRAT recognizes the role USAKA/RTS has performed in the defense of our Nation. Its missions of space operations, missile testing, and launch operations have provided the U.S. with valuable information and advancements. We foresee USAKA/RTS continuing to play a key space surveillance, ballistic missile testing, and space launch platform role for the Army, the Department of Defense, other government agencies, and our Nation.

I appreciate having the opportunity to speak on this matter of interest and look forward to addressing any questions you or the other Committee members may have.